Emerging coordination mechanisms for multi-party IPR holders: Linking Research with Standardization

Eric J. Iversen  Nifu Step  Norway/ Australian Innovation Research Centre, University of Tasmania
Rudi Bekkers  Dialogic  Netherlands/ Eindhoven University
Knut Blind  Fraunhofer ISI  Germany/Technical University
Berlin
Lemley 2002: “It is not enough to consider IP rights in a vacuum; we must consider them as they are actually used in practice. And that means considering how SSO rules affect IP incentives in different industries.” Lemley 2002: 2.
Background & Basis

- INTEREST Project (EU 6FP): Improving interaction between research and standardization activities in different settings

- The link between research and standardization activities faces various emerging challenges posed by intellectual-property-rights

- The approach that has grown up to address the potential for conflict has inherent weaknesses

- Moreover these weaknesses are currently becoming difficulties, leading to uncertainty and a search for alternative or complementary modes to diffuse the tension
Focus

1. The paper focuses on the mechanisms to coordinate the interests of the individual rights-holders and the collective interests behind the elaboration of standards

2. The paper reviews the nature, dimensions, and significance of the emergent conflict,
   1. Practical issues, focusing on two indicative current conflicts.
   2. Theoretical issues, the research-standard link

3. The paper considers the position and status of ex ante disclosure agreements

4. The paper surveys two alternative approaches that are (re)emerging
   1. Patent pools
   2. Non Assertion Covenants
The research standardization link

- The interaction between research and standardization relies on effective co-management of IPR issues.
  - Potential complementarity but risk of conflict between individual research strategies (hinging on IPR) and collective standardization goals
    - Patents and patent use: incentive mechanism, contractual relationship for R&D collaboration, but increasingly strategic use
  - Growing need for coordination mechanism(s) in network markets
Emergent conflict

- The potential for conflict is emergent, conflict has emerged as a function of the ‘co-evolution’ of these institutions

- Some challenges
  - Multi-rights and Multi-rights scenarios: cumulative licensing costs
  - Clearing third-party rights
  - Disclosure and hold-up scenarios
  - Technology-licensing companies

- Conflict Exacerbating Factors
  - Proliferation of patents, thickening of patent-thickets
  - Complexity of technologies
  - Prevalence of R&D collaboration
  - Internationalization of markets

- This approach is currently being questioned
  - FTC v Rambus
  - Qualcomm v Nokia, Nokia v Qualcomm
  - FTC/ JD Joint Hearings 2002
General considerations

- The conflict affects the balance between variety-creation and selection processes in the economy (e.g. David & Foray, 1995),
  - Thus affecting the interaction research and standardization activities
  - It affects the changing ‘market for technology’ (Geroski, 1995; Teece, 1981; Arora et al, 1999, 2000 etc)
  - It risks leading to a tragedy of the anti-commons

- Gains of individual rights-holders v collective gains to standard (Farrell, 1989)
  - ➔ Patent-thickets and patent-quality concerns (e.g. scope)
  - ➔ The advent of technology-licensing firms (Royalty-based v Cross-licensing)
  - ➔ Cumulative rights scenarios

- Imbalance in trade-off between static and dynamic-efficiency in the wake of a patent
Differentiating modes of coordination

- R&D cooperation (internal funds)
- R&D cooperation (external funds)
- Alliance
- Joint Venture
- Merger or acquisition

- One-firm industry standard; limited access
- Standards forum
- Standards consortium
- Formal standards body
- (Compulsory opening of standard)

- Licensing
- Cross-licensing (bilateral)
- Cross-licensing (group-wise bilateral)
- Clearing house
- Sub-licensing agreements
- Patent platforms
- Patent pool
- (Compulsory licensing - essential facilities doctrine)
Coordinative approaches

Mechanisms to coordinate the interests of rights-holders and the collective interests of standards have evolved in response to potential conflict:

- The central platform has been ex ante non-disclosure rules
- Limitations of current approaches: (frand definitions
- Increasing concerns of the implications research and standardization
- Apparent diversification of mechanisms to improve coordination between rights and standardization activities
The standard coordination mechanism

- Standards-setting bodies have built their defense against IPR conflicts around ex ante non-disclosure rules
  - This default mechanism to coordinate interests have evolved over time,
  - It has grown with regulatory support/oversight

- These rules/guidelines are designed to pre-empt the scope for hold-up by individual participants:
  - Flexibility without the need for regulation
  - Bolstered by the use of notifications of patents which are potentially ‘essential’/necessary’ to standards under elaboration.
  - Low administrative costs
  - …
Current search for resolution

- Recent conflicts,
  - JEDEC vs Rambus, Complaint against Qualcomm, etc

- Recent initiatives and mechanisms
  - Initiatives to adjust the quality and scope of patents, (supply-side)
    - IEEE proposal to develop a “limited patent” for software
  - Changing IPR policies at standards-setting bodies, (demand side),
    - Different approaches, e.g. RAND rights or Royalty Free
  - Stakeholder based mechanisms
    - Clearing-houses in bio-chemicals (Graf & Zilberman, 2001)
    - Use of Non-assertion Covenants with reciprocity clauses
    - Patent-pooling (from Linux to MPEG-4)
Selected coordination mechanisms: Non-Assertion Covenants

‘Non-assertion covenants’ are familiar agreements whereby the issuer agrees not to assert a defined set of rights.

- Typically multilateral agreement fx among participants in an R&D joint-venture
- When used as unilateral agreements initiated by dominant players with large IPR holdings, they can significantly affect the licensing dynamics of a technology
- Key element is a ‘defensive suspension’ term or reciprocity clause where novel use turns large IPR holders into ‘patent police’ for purposes of the standard (cf. Updegrove).
Selected coordination mechanisms: Non-Assertion Covenants in ODF

- **Background:** agreement stems from the open source environment where IBM recently issued a "Statement of Non-Assertion of Named Patents against OSS”
  - defensive clause addressing the assertion of third party IPR not only against IBM but for any “Open Source Software developer”:

- **Standards rivalry and NAC use**
  - (i) the Open Document Format for Office Applications (OpenDocument) drafted in OASIS (recently accepted as ISO standard)
    - Sun Microsystems, IBM, Adobe, etc (large patent portfolios).
    - Covenant based on Sun’s membership in Oasis.
  - (ii) the ongoing XML Reference Schema activities under the auspices of ECMA (designed to fast-track to ISO)
    - Microsoft central
    - a Covenant Regarding Office 2003 XML Reference Schemas
Selected coordination mechanisms: Non-Assertion Covenants in ODF

- The ODF NAC represents a commitment by Sun to the standards consortium and to potential adopters
  - not to enforce any of its patent claims, provided other parties don’t enforce theirs for the standard, either for the current version of the ODF or any subsequent version in which it is involved in elaborating.
  - Also, its defensive clause protects not just Sun, but any other developer, whether open source or not.

- The standard’s outward presentation as unequivocally ‘royalty-free’.
  - reduces the uncertainty of potential adopters for current and future versions
  - Signals to regulators that the standard addresses the requirement for ’openness’
  - It also caters to open source developers, who hate the idea of having to obtain licenses (royalty-free or not)

- But untested: What would happen in case of breach? How would a court interpret the NAC?
Conclusions

The Paper makes the case:

1. That IPR and formal standardization activities continue on their institutional collision course, with fresh conflicts
   • Persistent challenges to deal with IPR at the interface between research and standardization.

2. That the fault-line between institutions jeopardizes the important interaction between research and standardization activities

3. That established remedies (ex ante disclosure agreements) have inherent weakness that are resurfacing in significant ways

4. That the search for to resolve or head off costly conflicts involving IPRs continue
   • Emergence of new solutions and consolidation/harmonization of established ones

5. That different mechanisms have different merits and blind spots:
   • Not one size fits all. Different approaches suit different technologies and market structures
Thank you for your attention!